Installing the BayStack 150/152 Ethernet Hub Boot Firmware

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Introduction

This publication explains how to upgrade the boot firmware on Bay Networks® BayStack™ 150 Ethernet hubs and BayStack 152 Ethernet hubs. In this publication these hubs are referred to collectively as the BayStack 150/152 Ethernet hubs. This boot firmware upgrade is required only for the BayStack 150/152 Ethernet hubs. It is not required for other BayStack 150-series products.

For more information about the hub, refer to the following publication:

- *Installation and Reference for the BayStack 150-series Ethernet Hubs* (Bay Networks part number 893-01021-B)

Caution: Only qualified technicians should install and service this equipment, including performing this upgrade.

This product contains devices that are sensitive to electrostatic discharge (ESD). Place the hub on an antistatic mat when you perform the upgrade. If you do not have an antistatic mat, make sure you discharge any accumulated static electricity, or wear a discharge leash, when handling boards and boot firmware. Otherwise, you risk damaging the components.

Required Tools

To replace the BayStack 150/152 Ethernet Hub boot firmware, you need the following tools:

- A Phillips-head screwdriver for removing and replacing the retaining screws on the hub exterior
- A hex-head screwdriver for removing and replacing hex-head screws in the comm port
- BayStack 150/152 Ethernet hub power cable

Package Contents

This upgrade kit contains the following items:

- Boot firmware (part number ATMEL 27C010) (qty 1)
- Chip puller (qty 1)

Disassembling the BayStack 150/152 Ethernet Hub

Before disassembling the hub to remove and replace the boot firmware, take the necessary precautions to ensure that user sessions are not disrupted and that appropriate safety measures have been followed.

To disassemble the BayStack 150/152 Ethernet hub:

1. **Place the hub on a level surface, with the front of the hub facing you (Figure 1).**

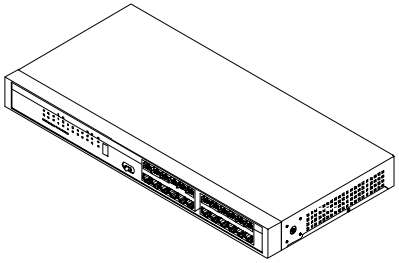

Figure 1. Front and Top Views of the BayStack 150/152 Ethernet Hub

2. **Remove the top panel:**
   a. **Using the Phillips-head screwdriver, remove two flat-head screws each from the left, right, and rear of the hub (Figure 2).**
   b. **Using the hex-head screwdriver, remove two hex-head screws from the comm port on the rear of the hub (Figure 2).**

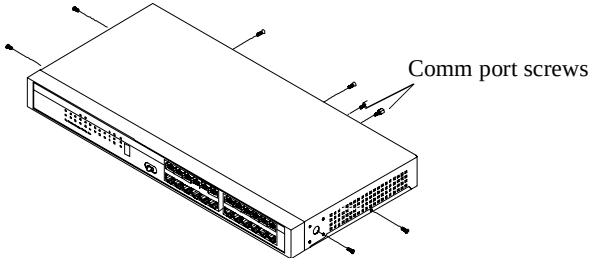

Figure 2. Exterior Screw Locations

c. **Lift the top panel off (Figure 3).**

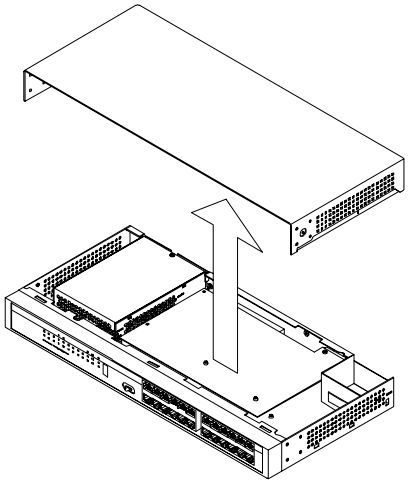

Figure 3. Removing the Top Panel

3. **Remove the upper board:**

   a. **Loosen the four head pins from the upper board (Figure 4).**

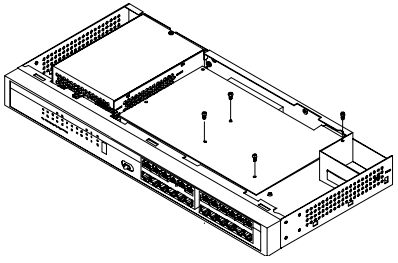

Figure 4. Head Pin Locations on the Top of the Board

   b. **Firmly lift the board up, disconnecting the male parts of the head pins from the female parts.**

c. Completely remove the board.

d. Turn the board over to reveal the side containing the socket and firmware (Figure 5).

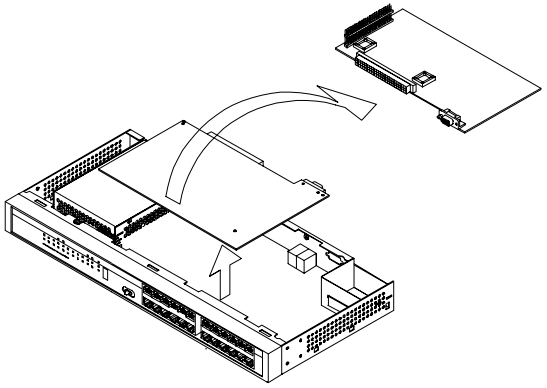

Figure 5. Removing the Board

Replacing the Boot Firmware

To replace the boot firmware in the BayStack 150/152 Ethernet hub:

1. **Using the chip puller, remove the boot firmware (part number IC27C010) from the U7 socket (Figure 6).**

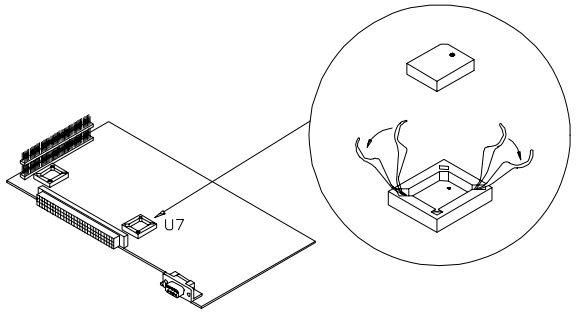

Figure 6. Removing the U7 Chip from the Socket

2. **Discard this chip.**
3. **Insert the first pin of the new boot firmware (part number ATMEL 27C010) into the triangle symbol in the U7 socket, or align the chip with the socket and insert it into the U7 socket (Figure 7).**

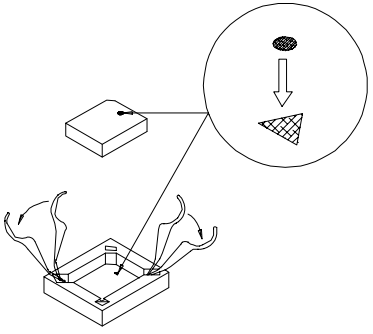

Figure 7. Aligning the Chip in the Socket

4. **Carefully press the chip into place, until it lies flat and evenly inside the socket.**

5. **Replace the upper board:**

   a. **Align the upper board with the interior of the hub (Figure 8).**

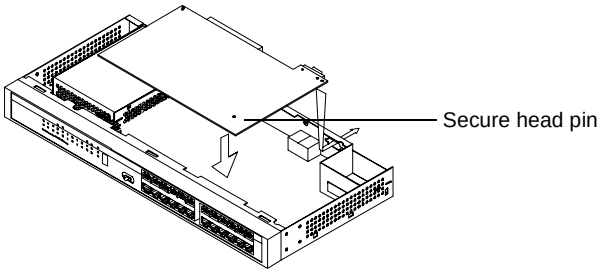

Figure 8. Replacing the Upper Board

   b. **Align the comm port on the board with the comm port in the hub interior.**

   c. **Secure the male head pin on the left edge of the board with the female head pin on the left interior of the hub.**

Verifying the New Boot Firmware

Before using the BayStack 150/152 Ethernet hub with its new boot firmware, test the new assembly to be sure the following sequence occurs:

1. **Plug the BayStack 150/152 Ethernet hub power cable into the port on the rear of the hub.**
2. **Plug the other end of the power cable into a power source.**
3. **Verify the proper functioning of the new boot firmware:**
   - The Utilization light flashes in one location, for instance Location 1. (Figure 9).

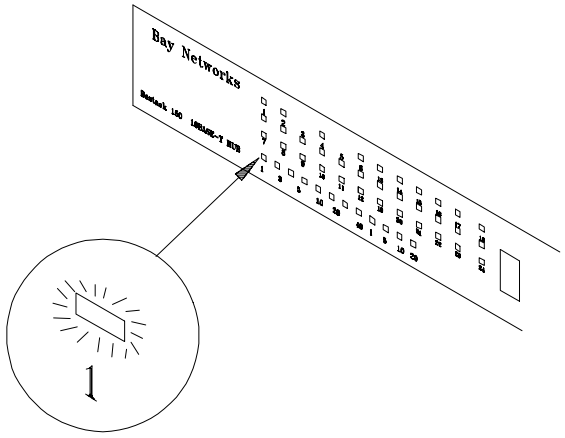

Figure 9. Utilization Light 1 Location

- The Link light flashes between two ports, for instance between ports 1 and 7 (Figure 10).

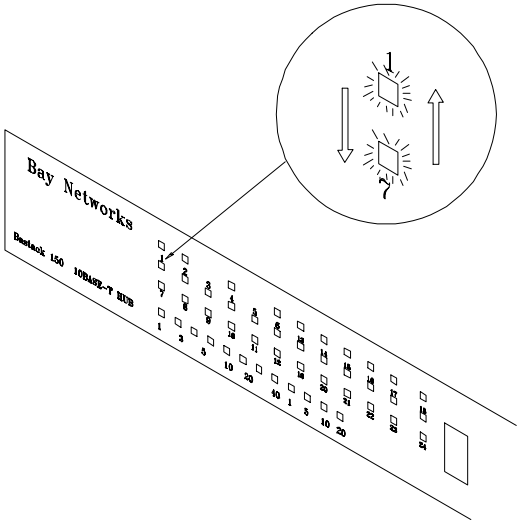

Figure 10. Link Light Locations 1 and 7.

- Disconnect the power cable from the power source and then from the hub.

Reassembling the BayStack 150/152 Ethernet Hub

To reassemble the BayStack 150/152 Ethernet hub:

1. **Replace three male head pins on the upper board (Figure 11), matching them with their female counterparts in the bottom interior of the hub. Firmly, but gently, secure the head pins.**

   Verify that the head pin on the lower left side of the board has been secured, as in step 5c.

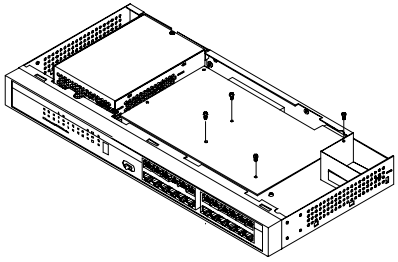

Figure 11. Replacing the Upper Board

2. **Reattach the top panel by aligning the comm port gap of the top panel with the comm port gap in the bottom of the hub (Figure 12).**

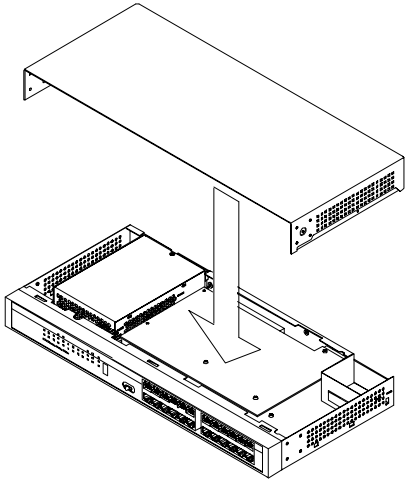

Figure 12. Replacing the Top Panel

3. **Using the hex-head screwdriver, replace and secure the two hex-head screws in the comm port (Figure 2).**
4. **Using the Phillips-head screwdriver, securely replace the two flat-head screws each on the left, right, and rear of the hub (Figure 2).**

Make sure that the new boot firmware is installed correctly before you reconnect the hub.

Caution: Applying power to incorrectly installed boot firmware can cause damage to the hub.

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